

What claim is:

1. A crystalline adefovir dipivoxil, characterized in the characteristic peak expressed in terms of 2θ at about 3.60, and/or about
5 7.28, and/or about 15.08, and /or about 17.24, and/or about 17.96, and/or about 20.12, and/or about 22.24 in X-ray powder diffraction pattern with Cu target radiation.
2. The crystalline adefovir dipivoxil of claim 1 characterized in that
10 it has endothermic peak at about 94.5 °C in DSC thermogram.
3. The crystalline adefovir dipivoxil of claim 1 characterized in that it has a melting point at 94 °C - 95 °C.
- 15 4. The crystalline adefovir dipivoxil of claim 1 characterized in that it has peaks at about 3320 cm^{-1} , about 3160 cm^{-1} , about 2975 cm^{-1} , about 1755 cm^{-1} , and about 1650 cm^{-1} in Fourier Transform Infrared Spectrum.
- 20 5. A composition comprising the crystalline adefovir dipivoxil of any of claims 1 to 4 and one or more pharmaceutically acceptable carriers or excipients.
6. The composition of claim 5, wherein each dosage unit contains 100-400 mg crystalline adefovir dipivoxil.
- 25 7. The composition of claim 6, wherein each dosage unit contains 1-80 mg crystalline adefovir dipivoxil.
8. A process for preparing the crystalline adefovir dipivoxil of any
30 of claims 1 to 4, comprising steps as follows:
 - e. Placing the crystalline AD in a round bottom flask;
 - f. Adding organic solvent and dissolving AD ultrasonically to form a solution at a given concentration;
 - g. Spray drying the above organic solution.

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9. The process of claim 8, wherein said organic solvent of step (b) is selected from the group consisting of anhydrous ethanol, methanol, acetone, acetoniril/di-n-butyl ether, and methylene chloride and the formed organic solution has an AD concentration of 100-300 g/L; in step
5 (c), the inlet air temperature is set at 85-100 °C, the measured inlet air temperature is 85-100 °C; the measured outlet air temperature is 50-75 °C; pump output efficiency is 5-15%; air pump output efficiency is 70%-95%; and the rate of airflow of the air compressor is at 600 L/L-800 L/L.

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10. The process of claim 8 or 9, wherein said organic solvent of step (b) is ethanol and said organic solution has an AD concentration of 200 g/L; in step (c), said inlet air temperature is set at 95 °C, the measured inlet air temperature is 95 °C; the measured outlet air
15 temperature is 60 °C; pump output efficiency is 8%; air pump output efficiency is 85%; and the rate of airflow of the air compressor is at 700 L/L.